Inter'l Appl. No.:PCT/FR04/00874

Page 2 of 6

Amendments to the Claims:

- 1. (Currently Amended) An immunomodulatory product, characterized in that it is obtained according to a method of preparation comprising the following steps:
- inoculation and incubation, under aerobic or anaerobic conditions and at a temperature of between approximately 30 and 40°C, of *Bifidobacterium* comprising at least the strain *Bifidobacterium breve* I-2219 in an aqueous substrate having a pH of between approximately 6 and 8 and comprising at least the following ingredients:
 - i) lactoserum permeate,
 - ii) a lactoserum protein hydrolyzate,
 - iii) lactose,
 - removal of the *Bifidobacterium* from the aqueous substrate;
- ultrafiltration of the aqueous substrate through filtration membranes having a cutoff threshold of between 100 and 300 kDa, so as to obtain a concentrated retentate;
 - dehydration of the concentrated retentate,
 - dissolution of the dehydrated retentate in a buffer;
- gel exclusion chromatography of the retentate solution, on a column having an exclusion threshold of 600 kDa;
- recovery of the excluded fraction at the end of the chromatography, which fraction constitutes the immunomodulatory product.
- 2. (Currently Amended) The immunomodulatory product as claimed in claim 1, wherein characterized in that the *Bifidobacterium* bacteria are inoculated into the aqueous substrate in a proportion of 1×10^4 to 4×10^9 colony forming units per ml of substrate.
- 3. (Currently Amended) The immunomodulatory product as claimed in claim 1 or 2, characterized in that wherein the temperature of the substrate is maintained at a value of between 37 and 40°C throughout the incubation period.
- 4. (Currently Amended) The immunomodulatory product as claimed in <u>claim 1</u>, <u>wherein</u> any one of claims 1 to 3, characterized in that the pH of the aqueous substrate is maintained at a value of between 6 and 8 throughout the incubation period.
- 5. (Currently Amended) The immunomodulatory product as claimed in claim 4, characterized in that wherein the pH of the aqueous substrate is maintained at a value of between

Inter'l Appl. No.:PCT/FR04/00874

Page 3 of 6

6.5 and 7.5 throughout the incubation period.

- 6. (Currently Amended) The immunomodulatory product as claimed in <u>claim 1</u>, <u>wherein</u> any one of the preceding claims, characterized in that the ingredients of the aqueous substrate are present in the following amounts:
 - i) lactoserum permeate: from 3 to 80 g,
 - ii) lactoserum protein hydrolyzate: from 2 to 80 g,
 - iii) lactose: from 5 to 50 g,

these amounts being given per liter of said aqueous substrate.

- 7. (Currently Amended) The immunomodulatory product as claimed in claim 6, eharacterized in that wherein the ingredients of the aqueous substrate are present in the following amounts:
 - i) lactoserum permeate: from 40 to 60 g,
 - ii) lactoserum protein hydrolyzate: from 5 to 15 g,
 - iii) lactose: from 10 to 30 g,

these amounts being given per liter of said aqueous substrate.

- 8. (Currently Amended) The immunomodulatory product as claimed in <u>claim 1</u>, <u>wherein</u> any one of the preceding claims, characterized in that the aqueous substrate also comprises at least one additional ingredient chosen from buffer salts, yeast extracts and cysteine hydrochloride.
- 9. (Currently Amended) The immunomodulatory product as claimed in claim 8, characterized in that wherein the aqueous substrate comprises a buffer salt chosen from sodium dihydrogen phosphate and potassium dihydrogen phosphate, which represents from 0.5 to 5 g per liter of aqueous substrate.
- 10. (Currently Amended) The immunomodulatory product as claimed in claim 8, eharacterized in that wherein the yeast extract represents from 0.5 to 5 g per liter of aqueous substrate.
- 11. (Currently Amended) The immunomodulatory product as claimed in claim 8, eharacterized in that wherein the cysteine hydrochloride represents from 100 to 500 mg per liter of aqueous substrate.

Inter'l Appl. No.:PCT/FR04/00874

Page 4 of 6

12. (Currently Amended) The immunomodulatory product as claimed in claim 1, wherein any one of the preceding claims, characterized in that the removal of the Bifidobacterium from the culture medium is carried out by microfiltration or by centrifugation of the aqueous substrate.

- 13. (Currently Amended) The immunomodulatory product as claimed in claim 12, characterized in that wherein the removal of the *Bifidobacterium* from the culture medium is carried out by centrifugation of the aqueous substrate.
- 14. (Currently Amended) The immunomodulatory product as claimed in <u>claim 1</u>, <u>wherein</u> any one of the preceding claims, characterized in that the method also comprises, after the *Bifidobacterium* removal step, an additional step consisting of destruction of the residual enzymatic activities contained in the aqueous substrate after incubation.
- 15. (Currently Amended) The immunomodulatory product as claimed in <u>claim 1</u>, <u>wherein</u> any one of the preceding claims, characterized in that the exclusion chromatography is carried out on a crosslinked agarose and dextran gel.
- 16. (Currently Amended) The immunomodulatory product as claimed in <u>claim 1</u>, <u>wherein</u> any one of the preceding claims, characterized in that the excluded fraction essentially consists of a complex of polysaccharides and of proteins in which the carbohydrate fraction represents from 5 to 30% by weight, the protein fraction representing from 70 to 95% by weight relative to the total weight of said complex.
- 17. (Currently Amended) The immunomodulatory product as claimed in claim 16, eharacterized in that wherein the carbohydrate fraction of the excluded fraction has the following monosaccharide composition (expressed as molar ratios with respect to rhamnose): galactose: 5.5 to 8; mannose: 0.8 to 1.3; glucose: 2.5 to 5; N-acetylgalactosamine: 0.3 to 1; N-acetylglucosamine: 0.07 to 0.3; neuraminic acid: 0 to 0.15, and rhamnose: 1.
- 18. (Currently Amended) The immunomodulatory product as claimed in claim 16, characterized in that wherein the protein fraction comprises at least one peptide corresponding to at least one of the following sequences:
 - RELGIGTPSFLHNGGQWYIYA (SEQ ID No. 1)

Inter'l Appl. No.:PCT/FR04/00874

Page 5 of 6

- RVLYNPGQYXYVR (SEQ ID No. 2)

- EQATANGQVSSGQQSTGGSAAP (SEQ ID No. 3).
- 19. (Currently Amended) The A medicament comprising the immunomodulatory product as claimed in claim 1 any one of the preceding claims, as a medicament.
- 20. (Currently Amended) The An immunomodulatory medicament comprising the immunomodulatory product as claimed in claim 1 any one of the preceding claims, as an immunomodulatory medicament.
- 21. (Currently Amended) A pharmaceutical composition, characterized in that it contains containing, as active principle, at least one immunomodulatory product obtained according to the method as defined in claim 1 any one of claims 1 to 18, and at least one pharmaceutically acceptable carrier.
- 22. (Currently Amended) The pharmaceutical composition as claimed in claim 21, characterized in that wherein it is intended for oral administration and in that it is in the form of a liquid or of a solid.
- 23. (Currently Amended) A food composition, characterized in that it contains containing, as <u>an</u> ingredient, at least one immunomodulatory product obtained according to the method as defined in <u>claim 1</u> any one of claims 1 to 18.
- 24. (Currently Amended) The food composition as claimed in claim 23, eharacterized in that wherein it is in the form of a fermented or non-fermented, milk or non-milk preparation, of animal or plant origin, including infant formulas, or for adults or senior citizens.
- 25. (Currently Amended) The food composition as claimed in claim 24, eharacterized in that wherein it is in the form of liquid or powdered milk, of fresh products, of cereals, of biscuits (fodder), of jars of baby food, of desserts, of products for hospitals, of dietetic products or of nutritional supplements.